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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/307,452	05/07/1999	TAL LAVIAN	NTL-3.2.076/	4857

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EXAMINER

JACKSON, JENISE E

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/307,452

Applicant(s)

LAVIAN ET AL.

Examiner

Jenise E Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7,12 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-5,8-11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 8-11, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Yerxa and Karve) in view of Bott.
3. As per claims 1, 4-5, 8-9, 13, Yerxa teaches that Java has a Java Virtual Machine, that consists of three parts, one of which is the security manager(SM, i.e. security association manger). Yerxa teaches that the security manger monitors file access, system I/O, network I/O, etc...(see, pg. 2). Further, Yerxa teaches that when an applet performs one of the above actions, it first consults the SM for approval(see pg. 2). Also, Yerxa teaches that the SM decides if the action is permissible based on the origin of the application or applet(see pg. 2). Therefore, the Examiner asserts that Yerxa provides security against unauthorized access when the applet performs one of the above actions. Yerxa teaches that whenever a possibly dangerous function is called from within the applet or application, the SM grants or denies access to specific resources based on the origin of the application or applet. Further, Yerxa teaches that the administrator can restrict access to an applet based on its digital signature. Therefore, the Examiner asserts that security manager determines the origin of the application by checking the digital signature. The Examiner asserts that Yerxa teaches receiving a digital signature at a security manager, because the security manger determines the origin of the application, and Yerxa teaches that applications

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have digital signatures, thus Yerxa teaches receiving a digital signature at a security manger.

Yerxa teaches certain applets are given more access based on where they reside in the computer(see pg. 2). Yerxa also teaches that users may grant more access to certain applets.

Therefore, the Examiner asserts that Yerxa does disclose access levels. The Examiner asserts that Yerxa does disclose a digital signature associated with the applet(see pg. 3). Therefore, an applet is associated with an access level.

4. Although Yerxa is silent on the code or key that is used with a digital signature. The Examiner takes Official Notice that it is well-known in the art of digital signatures, that a key(i.e. code) pair is used for encryption and decryption, the motivation is that integrity is insured because one would need the corresponding key in order to decrypt. Proof that a digital signature has a corresponding pair can be taught in Karve. Karve teaches that an applet with a digital signature a public and private key. Also, Karve teaches that something can be encrypted with a public key, and decrypted with a corresponding private key(see pg. 3 of Karve). Therefore, the Examiner asserts that Karve teaches an encryption code and de-encryption code.

5. Further, Karve discloses that the browser verifies the code and then the JVM allows the applet to run on the client machine. The Examiner asserts that the security manager is inside of the browser. Furthermore, the SM authenticates the de-encrypted digital signature, because Karve states that the browser verifies the code, and the code as taught in Yerxa and Karve has a digital signature, than the Examiner asserts Yerxa and Karve teach that the SM authenticates the de-encrypted digital signature; and the SM de-encrypted the digital signature with the de-encryption code(see above for explanation).

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6. However, Yerxa and Karve are silent on the SM requesting a de-encryption code, and requesting allowed operations associated with the authenticated signature. The Examiner looks towards Bott. It would have been obvious to modify Yerxa and Karve with Bott, the motivation is that how does the security manager know the certificate is legitimate? Bott teaches that the certificate authority checks the digital signature on the certificate against the secure certificate it originally issued. Furthermore, Bott teaches that if the certificate is valid the browser used the key(i.e. code) to do whatever task. Therefore, the Examiner asserts that Bott teaches SM requesting a de-encryption code, because the CA(i.e. certificate authority) in Bott has the corresponding key(i.e. de-encryption code), and the browser uses this code to perform task or allowed operations(see Bott).

7. As per claims 2, 10, 14 wherein the network device includes a Java enabled device, is not explicitly taught; however, it is implicit because Yerxa teaches that Java is used. Therefore, the Examiner asserts that there is a Java enabled device.

8. As per claims 3, 11, 16-17, the Examiner takes Official Notice that a de-encryption code includes a public key certificate associated with a private key, the motivation is that integrity is issued because in order to decrypt one must have the de-encryption code. The Examiner asserts that a private key and public key, can be used to encrypt and decrypt respectively or decrypt and encrypt respectively, this is taught by Schneier(see pg. 37).

9. As per claim 15, the Examiner asserts that a downloadable file is an applet or application, and Yerxa taught above teaches of digital signatures.

10. Claims 6-7, 12, 18 are allowable for the feature of a policy server receiving a request for allowed operations associated with the digital signature, comparing the authenticated signature

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with information stored on the policy server; and policy server sending a response to the SAM indicating an access level corresponding to the authenticated signature. As per prior art of Yerxa, Bott, and Karve, none of these teach the limitations above. More specifically, in prior art, and specifically the art that was applied fails to disclose a policy server, the art discloses a security manager(SAM) that receives all code, and has a digital signature associated with it, the SAM denies and allows request to resources based on the origin of the code, in prior art there is no suggesting or disclosing of a policy server cooperating with the SAM, the SAM handles all comparing of the signature, and determining of the access level, because especially in the prior art of Java the SAM executes inside the sandbox, and the SAM monitors the code.

Response To Amendment

11. The Applicant states that Yerxa and Bott do not disclose the claim limitations of claims 1, 8, and 13. Further, the Applicant states Yerxa and Botts does not suggest using a de-encryption digital signature to obtain an access level for a portion of program code.

12. First, the Applicant states that Yerxa does not suggest or disclose providing security against unauthorized access to internal resources. The Examiner disagrees with the Applicant. The system manager of Yerxa monitors system I/O, Network I/O(see pg. 2). The system manager of Yerxa determines which applets are allowed access based on the origin, and accepts or reject access to specific resources based on the origin, and verifies the origin based on the digital signature.

13. Second, the Applicant is urged to look at previous rejection, the Examiner rejected claims (Yerxa and Karve) in view of Botts(see pg. 2 of previous rejection). Yerxa disclosed a digital signature(see pg. 3), but did not disclose the components that make up the digital signature. The

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Examiner look towards Karve to provide details of what components make up a digital signature.

Karve teaches that an applet with a digital signature has a key pair, public and private key.

Therefore, the Examiner asserted that Karve teaches a encryption code and de-encryption code(see pg. 3 of Karve, and pg. 3 of previous rejection).

14. Third, in regards to the access level. The Examiner disagrees with Applicant's remarks that Yerxa does not teach an access level. Yerxa teaches certain applets are given more access based on where they reside in the computer(see pg. 2). Yerxa also teaches that users may grant more access to certain applets. Therefore, the Examiner asserts that Yerxa does disclose access levels. The Examiner asserts that Yerxa does disclose a digital signature associated with the applet(see pg. 3). Therefore, an applet is associated with an access level.

15. Lastly, the Applicant states that Yerxa teaches away from the use of digital signatures. The Examiner disagrees, although Yerxa teaches one aspect of digital signatures being risky, Yerxa does not teach not including a digital signature to verify code. Yerxa teaches that a better byte-code verifier will lessen security risks.

Action is Final, Necessitated By Amendment

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

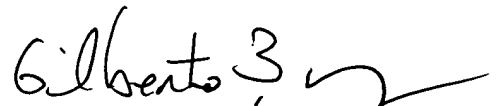
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenise E Jackson whose telephone number is (703) 306-0426. The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-0040 for regular communications and (703) 308-6306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



December 15, 2003



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